## **Martin Sperber**

Nationality : German

Education :

1966 - 1978 School education

?? elementary school

?? highschool with technical college qualification

1978 - 1988 Study at the technical college Aachen with diploma

grade in aviation engineering

**Present position**: Official in charge by TÜV Rheinland in Aviation Branch

Years within the firm: 13 (TÜV Rheinland/Berlin-Brandenburg)

## Key qualifications:

Knowledge of Aviation Regulation in the matter of airworthiness and operation, (National, JAA, FAA);

Knowledge and experience in the field of air accidents investigations;

Knowledge and experience in the field of passive safety in aircrafts;

Knowledge and experience in the field of crashworthiness of aircrafts;

Knowledge and experience in the field of dynamic testing of aircrafts and aircrafts components;

Knowledge and experience in the field of Biomechanic;

Knowledge and experience in the field of noise measurements of propeller driven aircrafts:

Management of complex and large projects;

## **Professional Experience Record:**

1987 - today Responsible for the implementation of different research and development projects:

Period	Project notation	Description of performance
1987 - 1988	Technical safety and noise- reduction of hot-air-balloons	- noise measurements at different burner- systems
1987 - 1988	Glider recovery system SB 13	- Investigations on pilot loads during parachute unfold and impact on the ground
1987 - 1989	Belt restraint systems in gliders	Analysis of glider crashes in the Federal     Republic of Germany
		- realisation of field tests, typical for glider crashes , in order to record load values
		- realisation of dynamic (crash) tests with common belt restraint systems and evaluation of the test-results
		- realisation of dynamic tests with varied belt restraint systems and evaluation of the test- results
		- elaboration of advises to increase passive safety in gliders

Period	Project notation	Description of performance
1988	Investigations on the tensile strength of aged beltmaterials	- Extension tests with aged belt-materials
1990 - 1991	Restraint systems in gliders	<ul> <li>Investigations on a possible energy absorption by the seat-construction in modern gliders</li> <li>elaboration of improvements verified by dynamic tests</li> <li>work out of suggestions for advanced glider construction requirements</li> <li>design of a H-point device to locate the correct anchorage points of the belt-system</li> </ul>

1991 - 1992 1993 - 1998	Crash-Safety in aircraft cabins  Investigation on occupant-safety at glider and motorglider accidents	<ul> <li>Investigation of biomechanical load maxima</li> <li>construction and building of a testdevice</li> <li>realisation of dynamic tests in order to investigate the consequences of seat-deformation with regard to the emergency exit</li> <li>Performing of a accident analysis</li> <li>arrangement and valuation of biomechanical load maxima</li> <li>Performing of dynamic tests</li> <li>valuation and optimisation of glider designs and elaboration of suggestions with regard to construction requirements</li> </ul>
1994 - 1995	Requirements on sidefacing aircraft seats	- Analysis of the current aircraft requirements - investigation of biomechanical load maxima of loads acting from aside - developing concepts to support the human body from aside - elaboration of basic requirements for sidefacing seats in aircraft cabins - verification of these basic requirements by dynamic tests
1995 - 1998	Developing of education- and examination material for aircraft inspectors	<ul> <li>Developing a concept in order to find authors</li> <li>arranging the different scripts</li> <li>elaborating a list of requirements for aircraft inspectors</li> </ul>
1996 - today	Requirements on child restraint systems in aircraft's	<ul> <li>Performing a literature research</li> <li>installation experiments</li> <li>performing dynamic tests with child restraint systems</li> <li>elaboration of requirements on child restraint systems in aircraft's</li> </ul>
1997 - 1999	Injury Criteria for enhanced passive Safety in Aircraft's	<ul> <li>Accident analysis</li> <li>Screening of evaluation criteria</li> <li>Correlation injury and evaluation criteria</li> <li>Biomechanic</li> <li>elaboration of evaluation criteria</li> <li>Proposal for European airworthiness requirements</li> </ul>